



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,702	03/09/2004	Johann F. Petersen	58999US003	2885
32692 7590 07/16/2009 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER WOLLSCHLAGER, JEFFREY MICHAEL				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
07/16/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com

Office Action Summary

Application No.

10/796,702

Applicant(s)

PETERSEN ET AL.

Examiner

JEFFREY WOLLSCHLAGER

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-14, 16, 17, 19-27 and 34-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-14, 16, 17, 19-27 and 34-43 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 3, 2009 has been entered.

Response to Amendment

Applicant's amendment to the claims filed June 3, 2009 has been entered. Claim 27 is currently amended. Claims 42 and 43 are new. Claims 4, 5, 15, 18, and 28-33 have been canceled. Claims 1-3, 6-14, 16, 17, 19-27 and 34-43 are pending and under examination.

Claim Objections

Claim 16 is objected to because of the following informalities: Claim 16 recites the stretch ratio is "between 1.1 to 10:1". For the sake of consistency with the terms utilized in the other claims of the instant application the examiner submits the recitation would be more properly rendered - - between 1.1:1 and 10:1 - - . Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,598,276).

Regarding claim 1, Buzzell et al. teach a process of producing stretched fasteners comprising providing a fibrous web layer (Figure 13 and Figure 13a) for employment as the loop member in a hook and loop fastener (col. 14, line 60 - col. 15, line 27); passing the fibrous web layer through the nip formed by two rolls, one of them (14) having cavities that are negatives of a plurality of male fastening elements (Figure 13 and Figure 13a); introducing a molten thermoplastic (col. 2, lines 40-55) resin (20) into the cavities in excess of amount that would fill the cavities which excess forms the web layer (Figure 13a); allowing the resin to at least partially solidify and stripping of the laminate from the roll (Figure 13); stretching the precursor web laminate (Figures 1 and 2; Abstract) either monoaxially or biaxially (col. 11, line 4-col. 12, line 8) to produce a fastener for the intended application (col. 10, lines 50-67). Additionally, Buzzell et al. incorporate Kennedy et al. into their disclosure by reference at col. 15, line 5. Kennedy et al. teach a method of producing laminated hook fastener products wherein they teach that woven or knitted materials (Figure 8; col. 6, lines 38-41) or non-woven materials

(Figure 5; col. 5, lines 50-64) may be employed, as desired, to create a laminated article that is capable of engaging into hooks or that can receive other bonding agents (col. 3, lines 5-14). Further, Kennedy et al. suggest optimizing the weight and thickness of the nonwoven layer (col. 5, lines 50-64). Buzzell et al. do suggest the fibrous material employed to form the laminate (Figure 13a) functions as loops in a hook and loop fastener (col. 15, lines 23-27), but do not teach that employment of a nonwoven fibrous material that is in continuous contact with the thermoplastic web layer (i.e. a nonwoven fibrous material that is not pre-compressed) is employed. However, Shepard et al., who also incorporate Kennedy et al. (a patent related to the Kennedy et al. patent incorporated by Buzzell) into their disclosure by reference (col. 4, lines 30-39), teach a method of providing a nonwoven, uncompressed fastener loop material that is less expensive than conventional loop fabrics (col. 1, lines 21-34) that has a binder applied to its backside and is then stretched, after the application of the binder (which can take a variety of forms – see claims 14-24 and 30), to form a stabilized loop product (col. 1, line 54-col. 2, line 12; col. 4, lines 30-39; col. 5, lines 9-26; col. 9, lines 62-col. 10, line 13; col. 11, line 55-col. 12, line 5; col. 13, lines 21-23; col. 15, lines 39-44 col. 17, lines 50-64; claims 14-24 and 30).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have employed a nonwoven, uncompressed, stretchable, fibrous loop material, as the fabric layer of Buzzell et al., as suggested by Shepard et al., for the purpose, as suggested by Shepard et al. of providing stretchable loop material that is less expensive than conventional loop fabrics. The examiner submits that in the combination with Buzzell et al., the uncompressed, nonwoven loop material fed between the rolls (14) and (16) is in continuous contact with the layer of

thermoplastic resin (e.g. compare Figure 13 of Buzzell et al. with Figures 1a and 2 of the original disclosure).

The examiner recognizes that Buzzell et al. do not expressly recite all the claimed physical properties and effects. However, the combination employs the same claimed materials and performs the same claimed steps in the same claimed manner. As such, the examiner submits that the same claimed effects and physical properties are intrinsically achieved by the practice of the combined method (e.g. decreasing basis weight to a weight of less than 100 g/m²). For example, the examiner notes that the nonwoven material of Shepard has a basis weight of about 2 ounces/sq. yard (about 67 g/m²) or less (col. 1, lines 29-39; col. 7, lines 17-19) and that Shepard identifies stretching as a result effective variable that is selected to reduce the weight of the final product (col. 16, lines 15-27) and the cost of the final product (col. 1, lines 21-34; col. 7, lines 31-34). Additionally, Buzzell et al. teach the thickness of the web is reduced to a thickness as low as about 0.001 inches (col. 13, lines 26-36) (i.e. about 25 μ m) which is within the range set forth by the instant disclosure (US 2005/0202205; paragraphs [0062] and [0082]).

As to claim 3, Buzzell et al. teach preheating the fastener and heating after stretching (Figure 1 and Figure 2).

As to claim 6, Shepard et al. bond carded webs (Figures 8 and 9) to produce the nonwoven layer of loop material (col. 12, lines 45-62). It would have been obvious to one having ordinary skill in the art to have produced the nonwoven material in the manner as suggested by Shepard et al. in the method of Buzzell et al. for the purpose of reducing the cost of the manufacturing process while still providing a suitable loop material.

As to claim 7, the Shepard et al. employ fibers to produce the nonwoven material (Abstract), including nylon and polyester fibers (col. 2, lines 28-33). It would have been obvious to one having ordinary skill in the art to have employed the loop materials as suggested by

Shepard et al. in the method of Buzzell et al. for the purpose of reducing the cost of the manufacturing process while still providing a suitable loop material.

As to claim 8, Shepard et al. suggest controlling and optimizing the diameter and properties of the fibers as required (col.2, lines 12-17; col. 3, lines 38-65; col. 7, line 49-col. 8, line 7).

As to claim 9, Buzzell et al. teach fastener elements having densities in the range of 200-2000 per sq. inch and further teach optimizing the density depending upon the desired final use of the fastener (col. 8, lines 40-65).

As to claim 10, Buzzell et al. teach the thickness of the resin layer is as low as 0.001 inches (about 25 um) and suggest optimizing the thickness as required to impart the required stretchiness (col. 13, lines 26-35).

As to claim 11, Buzzell et al. teach polyethylene, polyesters, and nylon are suitable thermoplastic resins (col. 2, lines 40-55).

As to claims 12-14, Buzzell et al. teach the male elements comprise a stem projecting from the surface of the web layer that includes an enlarged section, such as a J-hook, (Figures 5 – 6B; Figures 7, 7a-7d, 8 and 13a).

As to claims 16 and 17, Buzzell et al. teach biaxially stretching the material to the extent required (col. 11, line 12 -col. 12, line 8; Figure 1 and 2; Figure 12) including stretch ratios ranging from 2-8 (col. 8, lines 4-41).

As to claim 19, Buzzell et al. employ a tenter apparatus (Figure 1 and Figure 2).

As to claims 20 and 21, Shepard et al. suggest the weight of the nonwoven material is about 2 ounces/sq. yard (col. 1, lines 41-50) or less (col. 7, lines 32-34) (i.e. 67 g/m² or less). In the combination, this material is stretched to produce the desired hook and loop fastener. Additionally, Shepard et al. suggest that the density of the material is a result effective variable

that impacts the cost and weight of the final product. As such, one having ordinary skill would have readily optimized the final density of the loop portion of the fastener material to economically yield a product having the desired properties. Further, Buzzell et al. teach stretch ratios ranging from 2-8 (col. 8, lines 4-41).

As to claims 22 and 23, Buzzell et al. suggest a web having a thickness of about 0.001 inches (about 25 μm) and teach stretch ratios ranging from 2-8 (col. 8, lines 4-41; col. 11, line 12-col. 12, line 8).

As to claims 24 and 25, Buzzell et al. teach fastener elements having densities in the range of 200-2000 per sq. inch and further teach optimizing the density depending upon the desired final use of the fastener (col. 8, lines 40-65).

As to claim 26, the combination employs the same claimed materials to practice the same claimed method in the same claimed manner. Accordingly, the same claimed physical properties and effects (e.g. tensile strength in the machine direction) would intrinsically be realized by the practice of the combined method.

As to claim 34, Shepard et al. teach the weight of the material is about 2 ounces/sq. yard (col. 1, lines 41-50) or less (col. 7, lines 32-34) (i.e. 67 g/m^2 or less).

As to claim 35, Buzzell et al. teach monoaxially and biaxially stretching the material to the extent required in the machine and width direction (col. 11, line 12 -col. 12, line 8; Figure 1 and 2; Figure 12) including stretch ratios ranging from 2-8 (col. 8, lines 4-41).

As to claims 37 and 38, the combination performs the same claimed steps in the same claimed manner on the same claimed materials. As such, the examiner submits that implicitly, the same claimed effects and physical properties would be achieved by the practice of the combined method.

Claims 2 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,598,276) and de Navas Albareda (US 4,056,593).

Regarding claim 2, Buzzell et al. teach a process of producing stretched fasteners comprising providing a fibrous web layer (Figure 13 and Figure 13a) for employment as the loop member in a hook and loop fastener (col. 14, line 60 - col. 15, line 27); passing the fibrous web layer through the nip formed by two rolls, one of them (14) having cavities that are negatives of a plurality of male fastening elements (Figure 13 and Figure 13a); introducing a molten thermoplastic (col. 2, lines 40-55) resin (20) into the cavities in excess of amount that would fill the cavities which excess forms the web layer (Figure 13a); allowing the resin to at least partially solidify and stripping of the laminate from the roll (Figure 13); stretching the precursor web laminate (Figures 1 and 2; Abstract) either monoaxially or biaxially (col. 11, line 4-col. 12, line 8) to produce a fastener for the intended application (col. 10, lines 50-67). Additionally, Buzzell et al. incorporate Kennedy et al. into their disclosure by reference at col. 15, line 5. Kennedy et al. teach a method of producing laminated hook fastener products wherein they teach that woven or knitted materials (Figure 8; col. 6, lines 38-41) or non-woven materials (Figure 5; col. 5, lines 50-64) may be employed, as desired, to create a laminated article that is capable of engaging into hooks or that can receive other bonding agents (col. 3, lines 5-14). Further, Kennedy et al. suggest optimizing the weight and thickness of the nonwoven layer (col. 5, lines 50-64). Buzzell et al. do suggest the fibrous material employed to form the laminate (Figure 13a) functions as loops in a hook and loop fastener (col. 15, lines 23-27), but do not teach that employment of a nonwoven fibrous material that is in continuous contact with the thermoplastic web layer (i.e. a nonwoven fibrous material that is not pre-compressed) is

employed. However, Shepard et al., who also incorporate Kennedy et al. (a patent related to the Kennedy et al. patent incorporated by Buzzell) into their disclosure by reference (col. 4, lines 30-39), teach a method of providing a nonwoven, uncompressed fastener loop material that is less expensive than conventional loop fabrics (col. 1, lines 21-34) that has a binder applied to its backside and is then stretched, after the application of the binder (which can take a variety of forms – see claims 14-24 and 30), to form a stabilized loop product (col. 1, line 54-col. 2, line 12; col. 4, lines 30-39; col. 5, lines 9-26; col. 9, lines 62-col. 10, line 13; col. 11, line 55-col. 12, line 5; col. 13, lines 21-23; col. 15, lines 39-44 col. 17, lines 50-64; claims 14-24 and 30) and de Navas Albareda teaches cutting a precursor fastener web in the cross-direction (Figure 1 and Figure 3).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have employed a nonwoven, uncompressed, stretchable, fibrous loop material, as the fabric layer of Buzzell et al., as suggested by Shepard et al., for the purpose, as suggested by Shepard et al. of providing stretchable loop material that is less expensive than conventional loop fabrics. The examiner submits that in the combination with Buzzell et al., the uncompressed, nonwoven loop material fed between the rolls (14) and (16) is in continuous contact with the layer of thermoplastic resin (e.g. compare Figure 13 of Buzzell et al. with Figures 1a and 2 of the original disclosure). Additionally, it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have cut the web in the cross-direction, as taught by de Navas Albareda because de Navas Albareda suggest that such cutting (and extruding of rib structures) is an equivalent and alternative means of forming fastener products.

The examiner recognizes that Buzzell et al. do not expressly recite all the claimed physical properties and effects. However, the combination employs the same claimed materials and performs the same claimed steps in the same claimed manner. As such, the examiner submits that the same claimed effects and physical properties are intrinsically achieved by the practice of the combined method (e.g. decreasing basis weight to a weight of less than 100 g/m²). For example, the examiner notes that the nonwoven material of Shepard has a basis weight of about 2 ounces/sq. yard (about 67 g/m²) or less (col. 1, lines 29-39; col. 7, lines 17-19) and that Shepard identifies stretching as a result effective variable that is selected to reduce the weight of the final product (col. 16, lines 15-27) and the cost of the final product (col. 1, lines 21-34; col. 7, lines 31-34). Additionally, Buzzell et al. teach the thickness of the web is reduced to a thickness as low as about 0.001 inches (col. 13, lines 26-36) (i.e. about 25 μ m) which is within the range set forth by the instant disclosure (US 2005/0202205; paragraphs [0062] and [0082]).

As to claim 40, the combination performs the same claimed steps in the same claimed manner on the same claimed materials. As such, the examiner submits that implicitly the same claimed effects and physical properties would be achieved by the practice of the combined method.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,598,276), as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, 37 and 38 above, and further in view of Romanko et al. (US 6,484,371)

As to claim 27, the combination teaches the method set forth above. Buzzell et al. do not teach cutting the precursor laminate in the cross-directions as claimed. However, Romanko et al. teach cutting a precursor fastener web in the cross-direction (Figure 3a-3g; Figure 7 and 8;

col. 8, lines 13-27) and utilizing a hook and fabric structure in sanitary napkins (col. 11, lines 44-47)

Therefore, it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have cut the web in the cross-direction and employed them in sanitary napkin applications, for example, as taught by Romanko et al., since Romanko et al. suggest such a method is conventional for producing fasteners and that such a structure provides a less skin irritating product (col. 2, lines 4-12).

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,598,276), as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, 37 and 38 above, and further in view of either of Song et al. (US 5,534,215) or Gebler et al. (US 3,324,218).

As to claim 36, the combination teaches the method set of claim 35 as set forth above. Further, while Buzzell et al. teach longitudinally stretching the web prior to stretching the web widthwise to pre-orient the film, Buzzell et al. do not teach the longitudinal pre-orientation is performed by passing the laminate over rollers of increasing speed. However, Song et al. teach a method of orienting a polyester film wherein the film is first stretched longitudinally with rolls of increasing speed and then widthwise (col. 3, lines 1-14) and Gebler et al. teach a method of orienting a polypropylene film wherein the film is first stretched longitudinally with rolls of increasing speed and then widthwise (Figures 4a-4c; col. 1, line 70-col. 2, line 9; Example).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have

employed rolls of increasing speed to stretch the film longitudinally, as suggested by either of Song et al. or Gebler et al., since each of Song et al. and Gebler et al. suggest such a method is an equivalent and alternative method known in the art to stretch a film (MPEP 2144.06-2144.07). Further, Buzzell et al. suggests pre-orienting the film longitudinally strengthens the web (col. 11, lines 40-49). As such, Buzzell et al. establish pre-orientation of the film in the longitudinal direction as a result effective variable that would have been optimized prior to stretching in the transverse direction.

Claims 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,598,276), as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, 37 and 38 above, and further in view of Shepard et al. (US 6,329,016).

As to claims 39 and 42, the combination teaches the method set forth above. Buzzell et al. do not teach spunbond, point bonded, nonwoven materials. However, Shepard et al. teach that spunbond, point-bonded, nonwoven materials (Figure 13; col. 20, line 57-col. 21, line 62) are also suitable for forming stretchable loop material.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have employed the spunbond, point bonded, nonwoven materials of Shepard et al. for substantially the same reasons set forth above in the rejection of claim 1. The examiner notes that Shepard et al. '016 essentially suggests that the spunbond, point bonded nonwoven loop material is an equivalent alternative to the nonwoven loop set forth in Shepard et al. '276.

Claims 41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,598,276) and de Navas Albareda (US 4,056,593), as applied to claims 2 and 40 above, and further in view of Shepard et al. (US 6,329,016).

As to claims 41 and 43, the combination teaches the method set forth above. Buzzell et al. do not teach spunbond, point bonded, nonwoven materials. However, Shepard et al. teach that spunbond, point-bonded, nonwoven materials (Figure 13; col. 20, line 57-col. 21, line 62) are also suitable for forming stretchable loop material.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have employed the spunbond, point bonded, nonwoven materials of Shepard et al. for substantially the same reasons set forth above in the rejection of claim 1. The examiner notes that Shepard et al. '016 essentially suggests that the spunbond, point bonded nonwoven loop material is an equivalent alternative to the nonwoven loop set forth in Shepard et al. '276.

Response to Arguments

Applicant's arguments filed June 3, 2009 have been fully considered. Applicant's arguments directed to the rejection of claims 39 and 41 have been fully considered and they are persuasive. Accordingly, the rejection has been withdrawn. However, upon further consideration a new grounds of rejection for claims 39 and 41 has been made as set forth above. Applicant's arguments directed to the rejection of amended claim 27 and new claims 42 and 43 have been fully considered, but they are moot in view of the new grounds of rejection set forth above.

Applicant's arguments directed to the rejection based upon the combination of Buzzell et al. in view of Shepard et al. have been fully considered, but they are not persuasive. As an initial matter, the examiner has replaced Shepard et al. US 6,342,285 with the child of the '285 patent (US 6,598,276). The examiner submits the claims of the '276 patent further support the position the examiner has tried to establish in the prosecution of this application (discussed more below). As such, new citations to the '276 reference are included in the rejection with additional reference to claims 14-24 and 30 in the '276 patent.

Applicant argues against the apparent contradictions set forth by the examiner regarding the teaching of the references in the office action. As an initial matter and for the sake of clarity, the examiner has changed the language in the rejection from Buzzell does not "teach and suggest" to does not "teach". The examiner submits the following: The combination intends to establish that 1) Buzzell et al. alone, on its face (without the incorporated material from Kennedy et al.), does not teach the argued limitation, 2) Kennedy et al. establish a suggestion and implication that other materials could conceivably be employed and 3) Shepard et al. in combination with Buzzell et al. makes the claim *prima facie* obvious. Said differently, the examiner submits that Buzzell et al. in view of Shepard et al. (without the incorporation of Kennedy et al.) would make a *prima facie* case against claim 1 and that the incorporation of Kennedy et al. (in both Buzzell et al. and Shepard et al.) provide additional evidence supporting the rejection. Said differently still, Buzzell et al. alone do not meet the claim, Buzzell et al. with the subject matter of Kennedy et al. do not meet the claim, but Buzzell et al. in view of Shepard et al. with the incorporated subject matter from Kennedy et al. make a *prima facie* case that is stronger than Buzzell et al (without the incorporated subject matter) in view of Shepard et al. alone.

Further, applicant argues that the comments set forth in the Response to arguments section of the previous office action do not provide reasoning to support a conclusion of obviousness. This argument is not persuasive. The examiner submits that the rationale is set forth in the body of the rejection, that is, to provide stretchable loop material that is less expensive, and that the rationale is in no way based solely on the fact that "stretchable fabrics exist" as is described in more detail below.

Understanding the rationale employed in the rejection, applicant then argues that the rationale provided by the examiner (i.e. less expensive) could be met by following the express teachings of either of the references. Specifically, the arguments suggest and imply that while providing the fabric of Shepard et al. in a precompressed fabric form for use in the method of Buzzell et al. may be obvious or that utilizing the fabric of Shepard et al. after stretching the hook layer of Buzzell et al. to form a laminate may be obvious; there is no rationale to provide support for a rejection where the uncompressed, unstretched fabric of Shepard et al. is utilized in the method of Buzzell et al. and is then stretched with the hook layer of Buzzell et al. to form the stretched laminate product. This argument is not persuasive. The examiner submits that Buzzell et al. make it clear in context that the woven/knitted fiber employed in their method is precompressed due to its relative lack of "stretchability". Shepard et al. teach and disclose a non-woven stretchable uncompressed material that is intended to replace woven/knitted loop materials (col. 1). Accordingly, the examiner submits that one having ordinary skill, in view of the combination, would have been more likely to have viewed compressing the non-woven uncompressed material of Shepard et al. prior to using it in the method of Buzzell et al. as an extra and cost-adding step. The elimination of the compressed material is suggested by the combination by utilizing the stretchable uncompressed non-woven of Shepard et al. For example, Shepard et al. teach that a backing layer/binder/impermeable layer (e.g. claims 14-24)

can be applied to the nonwoven loop material to stabilize it either after stretching (claim 1) or before stretching (claim 30). As such, the examiner maintains that the combination reasonably suggests combining the stretchable, uncompressed nonwoven of Shepard et al. with the thermoplastic layer of Buzzell et al. (e.g. see the general method disclosed by Kennedy et al. and incorporated into both Shepard and Buzzell) and then stretching the combined laminate, as is reasonably suggested by Shepard et al. (e.g. see claim 30), to produce a reduced weight fastener with hooks on one surface and nonwoven material on the other surface for the purpose of producing a stretched laminate fastener that is less expensive than the laminate fastener provided for in Buzzell et al. alone.

Applicant argues that there is no teaching that Shepard et al. can achieve a basis weight of less than 30 gsm. This argument is not persuasive. The examiner submits that Shepard et al. teach the weight of the material can be 67 gsm or less and provides a motivation to reduce the weight as much as possible (cost) thereby establishing the weight as a result effective variable. Further, the combination suggests stretching the material to the same extent as set forth in the claims. Further still, it is noted that the specific non-wovens of Kennedy et al. have limited applicability since the reduced weight nonwoven loop material employed in the combination is from Shepard et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

Art Unit: 1791

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Wollschlager/
Examiner, Art Unit 1791

July 14, 2009